

## BACKGROUND OF THE INVENTION

## CROSS-REFERENCE TO RELATED APPLICATION

**[001]** This application is a National Phase of International Application Serial No. PCT/GB2004/003107, filed July 19, 2004.

## Field of Invention

**[002]** The present invention relates to a fairing for mounting upon a cylindrical underwater member such as a marine riser.

## Description of the Background Art

**[003]** In fact the present invention has been developed for use in connection with marine risers used in offshore oil extraction, although it has potential applications in other situations in which a submersed, cylindrical member is exposed to water flow and must be protected from the effects thereof.

**[004]** Water currents impinging on marine risers create two particular problems. Firstly they create drag, i.e. a lateral loading upon the riser, producing undesirable bending stresses and potentially also increasing loads at the riser's point of suspension. Secondly they can create so-called vortex induced vibration (VIV). Vortices are found to be shed alternately from opposite sides of the riser and the effect can be to produce vibration which is potentially damaging, particularly if resonance effects cause the vibration's amplitude to build up.

**[005]** It is known to address both problems by placing around the riser a streamlined, teardrop shaped fairing which is free to pivot about the riser's axis and so to "weathervane" - that is, to align itself with the direction of the current. Searches have brought to light several such fairings in the patent literature.

**[006]** GB 1193750 describes a fairing device for a cable towed behind a ship. A "D" shaped channel to receive a cable 7 is formed along most of the length of the fairing between a flat front face of a body part and a "u" shaped metal strap bolted to it, so that the fairing surrounds and covers the cable.